

SECRET

OSA-2084-72

1 May 1972

MEMORANDUM FOR:

SUBJECT : Procurement of Cardiac Defibrillator

1. This memorandum contains a recommendation for your approval. Such recommendation is contained in paragraph four (4).

2. Coronary artery disease is the most common cause of death in middle-aged American males. Many coronary thrombosis attacks would not be fatal if proper equipment were available immediately to control the electrical waves in the heart muscle in the initial few minutes. (Death is frequently caused by loss of control of contractions which renders the heart incapable of performing its function as a pump.)

3. In a situation where there are adequately trained medical personnel in a middle-aged community, it is considered necessary good practice to have such equipment available. For example, they are now placed in many Air Force Dispensaries as well as Hospitals.

4. It is recommended that [] be authorized to purchase necessary equipment as detailed in the attached sales' brochure in the amount of approximately []

25X1A

25X1A

Series "B"

Cy 171-



w/ATT.

GROUP 1
Excluded from automatic
downgrading and
declassification

SECRET

OSA-2084-72
Page 2

5. Supporting memoranda from [redacted] Flight Surgeon
and the Office of Medical Services' physician are attached.

25X1A

25X1A

Attachments
As stated above
APPROVED:

25X1A

[redacted]

2 MAY 1972

Date

25X1A

C/AMS/OSA
Distribution

- 1 - AMS
- 1 - "
- 1 - BFD
- 1 - EO/SA
- 1 - RB

[redacted] (1 May 72)

I CERTIFY THAT FUNDS ARE AVAILABLE:

25X1

COLLECTION REFERENCE NO. [redacted]
CHANGE TO ALLIANCE NO. 2141-1059

25X1A

[redacted]

AUTHORIZING OFFICER

SECRET

SECRET

OSA-2084-72

Page 2

5. Supporting memoranda from [redacted] flight Surgeon
and the [redacted] physician are attached.

25X1A

25X1A

Attachments
As stated above
APPROVED:

[redacted]

2 MAY 1972

Date

I CERTIFY THAT FUNDS ARE AVAILABLE:

COMMITTEE REFERENCE NO. [redacted]

CHARGE TO ALLOTMENT IS: 2141-10959

[redacted]

AUTHORIZING OFFICER

SECRET

ATTACHMENT 11

25X1 MEMORANDUM TO

SUBJECT: Justification and request for purchase of Cardiac Defibrillator and Electrocardiograph.

1. Request funds be approved for purchasing an electrical cardiac defibrillator and ECG recorder attachment. This medical equipment is needed in the opinion of the Flight Surgeon for the following reasons:

a. Coronary heart disease is epidemic in middle aged american males, particularly those in sedentary occupations. Myocardial infarction is the most common cause of death in this group. Ventricular fibrillation is the most common complication in the first few minutes or hours of a heart attack. Current medical information firmly establishes the fact that many otherwise survivable heart attacks result in demise of the patient because of ventricular fibrillation. Electrical defibrillation is the treatment of choice and is usually life saving. Most of our personnel are in the 4th to 6th decade of life and are in the highest risk group statistically.

25X1A

b. The remote location of our unit from the nearest hospital would definitely prevent transport of a patient to the hospital for defibrillation in the critical 4 or 5 minutes before irreversible brain damage would occur.

25X1A

c. The current medico-legal trend is to require defibrillation capability in the smaller medical facilities as well as larger ones.

d. The equipment requested was selected after evaluation of four competing brands. It is "second generation" equipment and has distinct improvements over earlier units. All of the equipment is highly portable and suitable for field or office use, here or on deployment.

e. The ECG unit is requested because recording of arrhythmia prior to defibrillation is considered essential by several medical references (furnished on request). The unit is compatible with the defibrillator or can be used separately for ECG's in the field or on deployment.

f. An additional risk to our people is cardiac fibrillation due to electrical shock from high voltage equipment in avionics and other shops.

2. The equipment requested is a product of Physiocontrol Corporation of Seattle, Washington and is sold and serviced by a local outlet, Medical Life Systems, Los Altos, Ca. 94022.

25X1

Lifepak/2 defibrillator	\$2850.00
with cardioversion	50.00
Model 1073-04 ECG recorder	995.00
TOTAL	\$3895.00

Director of Life Support

ATTACHMENT

Form 163a
8-66

LIFEPAK 2

Over three years of field-proven performance by the LIFEPAK / 33 have led the way to a second generation of portable LIFEPAKS by PHYSIO-CONTROL. LIFEPAK 2 is smaller, lighter, more versatile and easier to use.



Physio-Control



LIFEPAK 2

• No compromise, full capability D. C. Defibrillator

Five millisecond monophasic waveform produces up to 320 watt-seconds delivered energy (equivalent to 400 w.s. stored). Up to one hundred 320 watt-second pulses may be obtained without recharging battery. Continuously adjustable energy output level is displayed on an easy to read watt-second meter. A built-in test circuit provides a quick method for checking the defibrillator output.

• Built-in Cardioscope

Large non-glare scope produces a clear ECG waveform engineered for a stable baseline and fast trace recovery from artifact or defibrillator pulses. Patented Quick-Look** paddles permit monitoring the patient's ECG with the defibrillator paddles. This allows quick assessment of the patient's condition during an emergency. A standard 3 lead patient cable may be used for long term monitoring. A built-in synchronizer is optionally available for elective cardio-versions.

• Designed for the Operator

More than 3 years of experience with the LIFEPAK/33® have led to the development of an instrument that is exceptionally easy to use. Controls are located and labeled for maximum simplicity of operation. The paddle storage cover flips down to place the LIFEPAK 2 at an optimum viewing angle. Easily carried either open or closed. Front cover acts as a sun shield when used in brightly-lighted areas. A shoulder strap is available for hands-free carrying. Broad base provides stability when instrument is used on end.

• Rugged construction

The case is constructed of a tough, impact-resistant, non-conductive material. Injection molding process provides high strength and rigidity.

• Reliable Power Source

Long-life rechargeable Nickel-Cadmium battery, field proven as a portable Defibrillator power source for more than three years in the LIFEPAK/33. Constant power at high or low use rates. Battery level indicator signals low battery. Standard Charge-Pak included. Optional Mobile Charge-Pak is available for recharging the LIFEPAK 2 battery from vehicle power sources. Both chargers will provide emergency operating power for the LIFEPAK 2.

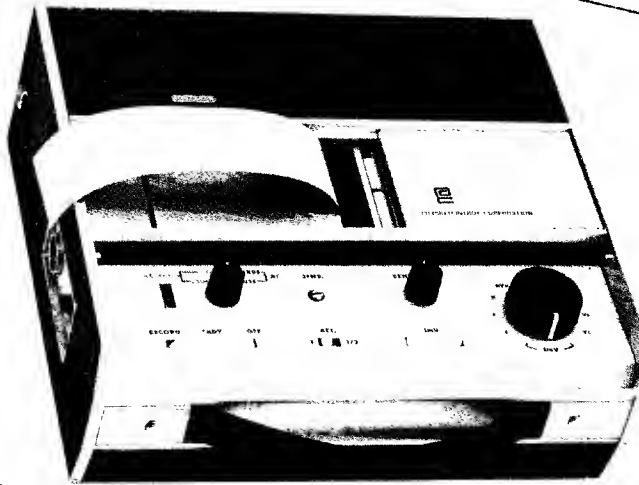
• Optional ECG Modulator System

Provides for transmission of ECG signals via telephone or radio. The top mounted phone coupler accepts telephone or radio handsets. When outside noise level is high, the radio may be directly connected to the signal output. RF shielding is provided to minimize radio interference when used with portable radio transceivers. The system is compatible with most ECG modulator/demodulator systems now in use.

Physio-Control Corporation
607 Second Avenue
Seattle, Washington 98101
Tel: 206/624-4824



PHYSIO-CONTROL SYSTEMS
P. O. Box 343
Tustin, CA 92680
(714) 357-1864



The PCC Model 073-04, all solid state, battery operated ECG Recorder is ideally suited to applications where power is unavailable or grounding and AC interference is a problem. The recorder provides a means for safely obtaining intra-cavitary ECG's or for taking ECG's of patients with pacing catheters, where AC line leakage currents can cause unsafe conditions. It has instant warm-up, is compact, light weight and is always ready to go where you go. The Model 073-04 has an unmatched level of reliability and performance; its controls have been human engineered for maximum simplicity and ease of operation. It uses rechargeable nickel cadmium batteries and may also be line operated in the event batteries become discharged.

SPECIFICATIONS:

Leads: I, II, III, AVR, AVL, AVF, V 1/4, V 2/5, V 3/6
System of amplifier: RC-coupling and direct coupling, balanced input, input impedance 5M ohm-G-5M ohm
Sensitivity: 15mm/1mV or over
Gain control: Course control—1 and 1/2 attenuations (2 steps)
Time Constant: 2 seconds or over
Frequency response: (With 10 cps as reference) 65% or over at 60 Hz, 35% or over at 100 Hz
Linearity: 5% or less at ± 20 mm pen deflection
Set noise: 10 μ V or less (input equivalent)
Blanking circuit: Linked to control switch and lead selector switch
Common mode rejection: 2000:1 (66db) or better
Calibration signal: 1mV signal is recorded as required in recording (patented circuit)
Electric shockproof: Input circuit has 5 mA fuse
Chart drive speed: 25mm/sec. and 50mm/sec.
Recording chart paper: Thermo-sensitive paper, 50mm wide, 30m long, rolled paper
Battery operation: Ni-Cd Battery. One full charge serves for approximately 100 minutes (approx. 150 meters in chart length at 25mm/sec. chart speed).
Charging time is approximately 14 hours.
Power requirements: 117 volts (other voltages, as specified by customers, are available), 50 or 60 Hz, approximately 25 watts recording; 10 watts charging.
Dimensions and weight: 11" wide, 4" high, 9" deep, approximately 14 lbs.

ACCESSORIES:

Patient cable	1
Power cable	1
Ground wire	1
Limb electrodes	4
Limb straps	4
Chest electrodes	3
Stylus	1
Fuse (1-5mA, 2-1A)	3
Recording paper	1
DERMA JEL, [®] Electrode Jelly	3
Screwdriver	1
Wrench for stylus	1
ECG Scale	1
Carrying case	1



MEDICAL LIFE SYSTEMS
P. O. Box 1043
Tustin, CA 92680
(714) 557-7864

PHYSIO-CONTROL CORPORATION
SEATTLE, WASHINGTON

27 April 1972

25X1A MEMORANDUM TO: AMS/OSA/DDS&T
SUBJECT : Cardiac Defibrillators

The capability for direct current cardiac defibrillation is essential for successful resuscitation in the acute emergency. We have had experience using Physio-Control's LIFEPAK Defibrillator and would strongly recommend their LIFEPAK 2, which is entirely portable, allowing "on the spot" defibrillation. It also features a monitorscope which records continuous oscilloscopic display of ECG, with the defibrillating paddles themselves being used as electrodes. The unit may also serve as a primary monitorscope using conventional electrodes for doing this monitoring.

Proper medical support for the management of catastrophic illness requires the presence of this type of equipment.



25X1A

Deputy Chief, Clinical Division

JDF/fmm